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42.   A method of forming a capacitor structure, comprising:

forming a container construction comprising a first silicon-containing layer around a second silicon-containing layer; the first silicon-containing layer being more heavily doped with conductivity-enhancing dopant than the second silicon-containing layer; the second silicon-containing layer defining an inner periphery of the container and the first silicon-containing layer defining an outer periphery of the container;

converting at least some of each of the first and second silicon-containing layers to hemispherical grain silicon; the hemispherical grain silicon from the first silicon-containing layer having a smaller average grain size than the hemispherical grain silicon from the second silicon-containing layer;

forming a dielectric material along the inner and outer peripheries of the container construction; and

forming a conductive material over the dielectric material; the container construction, dielectric material and conductive material together defining at least part of the capacitor structure.

43.   The method of claim 42 wherein the converting comprises:

(1) exposing the at least some of each of the first and second silicon-containing layers to silane gas and a temperature of at least about 550°C for a time of less than or equal to about 2 minutes under a vacuum of less than or equal to about 1×10^{-4} Torr to seed the at least some of each of the first and second silicon-containing layers; and

(2)   annealing the seeded layers at a temperature of at least about 550°C for a time of less than or equal to about 3 minutes.

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44.   The method of claim 42 wherein the first silicon-containing layer comprises a dopant concentration of at least 10^{20} atoms/cm^3.

45.   The method of claim 42 wherein the first silicon-containing layer comprises a dopant concentration that is at least 10^3 fold higher than any dopant concentration in the second silicon-containing layer.

46.   The method of claim 42 wherein the first silicon-containing layer comprises a dopant concentration that is at least 10^5 fold higher than any dopant concentration in the second silicon-containing layer.

47.   The method of claim 42 wherein the first silicon-containing layer comprises a dopant concentration that is at least 10^{10} fold higher than any dopant concentration in the second silicon-containing layer.

48.   The method of claim 42 wherein the second silicon-containing layer is substantially undoped.

        Please cancel claims 49-60.